

CLAIMS

What is claimed is:

1. A print medium comprising:
5 an ink-receiving layer and a coated paperbase, the ink-receiving layer present on the coated paperbase at less than approximately 10 grams per square meter and the coated paperbase having a Sheffield smoothness less than approximately 20 and a Sheffield porosity less than approximately 10.
- 10 2. The print medium of claim 1, wherein the ink-receiving layer is present from approximately 3 grams per square meter to approximately 7 grams per square meter.
- 15 3. The print medium of claim 1, wherein the ink-receiving layer comprises at least one water-soluble polymer, a cross-linking agent, a mordant, inorganic particles, and at least one surfactant.
- 20 4. The print medium of claim 3, wherein the at least one water-soluble polymer comprises at least one polyvinyl alcohol; the cross-linking agent comprises boric acid; the mordant comprises at least one of diallyldimethylammonium chloride, a cationic latex, or aluminum triformate; and the inorganic particles comprise cationic, superfine colloidal silica.
- 25 5. The print medium of claim 1, wherein the ink-receiving layer is present from approximately 4 grams per square meter to approximately 6 grams per square meter.
- 30 6. The print medium of claim 1, wherein the at least one surfactant comprises at least one nonionic, organosilicone surfactant.

7. The print medium of claim 1, wherein the at least one surfactant is at least one polysiloxane-polyethylene oxide compound or at least one polysiloxane-polyethylene oxide-polypropylene oxide compound.

5 8. The print medium of claim 1, wherein the coated paperbase comprises a coated paper, a cast-coated paper, or a commercial offset paper.

9. A method of forming a print medium having improved image quality and permanence, comprising:

10 providing a coated paperbase; and

applying an ink-receiving layer to the coated paperbase at less than approximately 10 grams per square meter, the coated paperbase having a Sheffield smoothness less than approximately 20 and a Sheffield porosity less than approximately 10.

15

10. The method of claim 9, wherein providing a coated paperbase comprises providing the coated paperbase selected from the group consisting of a coated paper, a cast-coated paper, and a commercial offset paper.

20

11. The method of claim 9, wherein applying an ink-receiving layer to the coated paperbase at less than approximately 10 grams per square meter comprises applying the ink-receiving layer from approximately 3 grams per square meter to approximately 7 grams per square meter.

25

12. The method of claim 9, wherein applying an ink-receiving layer to the coated paperbase at less than approximately 10 grams per square meter comprises applying a coating composition comprising at least one water-soluble polymer, a cross-linking agent, a mordant, inorganic particles, and at least one surfactant.

30

13. The method of claim 12, wherein applying an ink-receiving layer to the coated paperbase at less than approximately 10 grams per square meter comprises applying a coating composition comprising at least one polyvinyl alcohol; boric acid; at least one of diallyldimethylammonium chloride, a cationic latex, or aluminum triformate; cationic, superfine colloidal silica; and at least one polysiloxane-polyethylene oxide compound.

14. The method of claim 12, wherein applying an ink-receiving layer to the coated paperbase at less than approximately 10 grams per square meter comprises applying the ink-receiving layer from approximately 4 grams per square meter to approximately 6 grams per square meter.

15. The method of claim 9, wherein applying an ink-receiving layer to the coated paperbase at less than approximately 10 grams per square meter comprises coating the ink-receiving layer on the coated paperbase at less than approximately 10 grams per square meter.

16. A method of printing an image having improved image quality and permanence, comprising:
providing a print medium comprising a coated paperbase and an ink-receiving layer present on the coated paperbase at less than approximately 10 grams per square meter, the coated paperbase having a Sheffield smoothness less than approximately 20 and a Sheffield porosity less than approximately 10; and
printing the image on the print medium.

17. The method of claim 16, wherein providing a print medium comprising a coated paperbase and an ink-receiving layer present on the coated paperbase at less than approximately 10 grams per square meter comprises providing the coated paperbase selected from the group consisting of a coated paper, a cast-coated paper, and a commercial offset paper.

18. The method of claim 16, wherein providing a print medium comprising a coated paperbase and an ink-receiving layer present on the coated paperbase at less than approximately 10 grams per square meter
5 comprises providing the ink-receiving layer on the coated paperbase from approximately 3 grams per square meter to approximately 7 grams per square meter.

19. The method of claim 16, wherein providing a print medium
10 comprising a coated paperbase and an ink-receiving layer present on the coated paperbase at less than approximately 10 grams per square meter comprises providing the ink-receiving layer comprising at least one water-soluble polymer, a cross-linking agent, a mordant, inorganic particles, and at least one surfactant.

15
20. The method of claim 16, wherein providing a print medium comprising a coated paperbase and an ink-receiving layer present on the coated paperbase at less than approximately 10 grams per square meter comprises providing the ink-receiving layer comprising at least one polyvinyl
20 alcohol; boric acid; at least one of diallyldimethylammonium chloride, a cationic latex, or aluminum triformate; cationic, superfine colloidal silica; and at least one polysiloxane-polyethylene oxide compound.

25